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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,890	11/27/2000	Henry F. Lada	COMP.0130 (P00-3123)	6089

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EXAMINER

VU, TRISHA U

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 05/27/2003

2

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/722,890

Applicant(s)

LADA ET AL.

Examiner

Trisha U. Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-31 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13, 20, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation "wherein act (c) comprises" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 20 and 21 recites the limitation "the applications and drivers" in line 2. There is insufficient antecedent basis for this limitation in the claim. The examiner interprets this limitation as "the information" to be consistent with claim 17.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 3-4, 7-10, 16, and 24-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Petty (6,389,486).

As to claim 1, Petty teaches a method of implementing a personal digital assistant (hand-held) comprising a main unit (hosting device 16) and an option pack (PCMCIA card) (col. 3, lines 49-60) comprising the acts of: (a) coupling the option pack with the main unit (col. 3, lines 49-60), the option pack comprising a first memory device (part of memory 20) configured to store one or more applications and drivers associated with the one or more applications (set up/control/monitoring information and various other types of information), and a second memory device (part of memory 20) configured to store identification data (CIS) (col. 4, lines 17-46 and col. 2, lines 36-39), the main unit comprising a device manager (part of the hosting device which handles receiving set up/control/monitoring information from the PCMCIA card) configured to receive the identification data from the second memory device, a power supply, and a third memory device (col. 4, lines 34-46 wherein the third memory device inherently resides within the hosting device in order to store information read from the PCMCIA card); and (b)

transmitting the identification data from the second memory device to the device manager (transfer of information from the PCMCIA card) (col. 2, lines 32-46).

As to claim 3, Petty further teaches the first memory device and the second memory device comprise the same memory device (memory 20) (col. 4, lines 33-46).

As to claim 4, Petty further teaches the device manager comprises a device driver that controls the interaction between the main unit and the option pack (set up/control/monitoring the PCMCIA card) (col. 4, lines 33-46).

As to claim 7, Petty further teaches the identification data comprises option pack feature information (card's functions), option pack configuration (power information), and option pack identification (manufacturer's name and various other types of information) (col. 4, lines 33-46).

As to claim 8, Petty further teaches the identification data comprises option pack identification information (manufacturer's name and various other types of information, control information (control), a driver table (information used by hosting device to set up/control/monitor the card), and option pack configuration (power information) (col. 4, lines 33-46).

As to claim 9, Petty further teaches the identification information comprises a bootstrap program (set up the card) (col. 4, lines 34-38).

As to claim 10, Petty further teaches the identification information comprises original equipment manufacturer information (manufacturer's name and various other types of information) (col. 4, lines 34-38).

As to claim 16, Petty further teaches the second memory comprises location (linked list CIS) and identification information of the applications and drivers available on the option pack (descriptions of card's function) (col. 4, lines 39-46).

As to claim 24, Petty teaches an option pack interface comprising: a memory device (memory 20) comprising a memory data structure configured to store identification data; and at least one data sector (I/O memory space 22, common memory 26, or attribute memory 24) defined within the memory data structure (col. 4, lines 17-46).

As to claim 25, Petty further teaches the at least one data sector comprises option pack identification data (CIS) (col. 4, lines 34-46).

As to claim 26, Petty further teaches the at least one data sector comprises driver control information (set up/control/monitoring the card) (col. 4, lines 34-38).

As to claim 27, Petty further teaches the at least one data sector comprises a driver table (information used by hosting device to set up/control/monitor the card) (col. 4, lines 34-38).

As to claim 28, Petty further teaches the at least one data sector comprises option pack configuration information (power information) (col. 4, lines 33-46).

As to claim 29, Petty further teaches the option pack configuration information comprises information correlating to battery capacity of the option pack (col. 4, lines 42-46 and col. 2, lines 1-4).

As to claim 30, Petty further teaches the at least one data sector comprises a bootstrap program (set up the card) (col. 4, lines 34-38).

As to claim 31, Petty further teaches at least one data sector comprises original equipment manufacturer information (manufacturer's name and various other types of information) (col. 4, lines 34-38).

4. Claims 17 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Postman et al. (5,664,231) (herein after Postman).

As to claim 17, Postman teaches a method of inserting an option pack (PC card) into a main unit of a personal digital assistant (PDA), comprising the acts of: (a) powering-on the main unit (col. 9, lines 15-24); (b) determining whether there is an option pack coupled to the main unit (automatically apply power to the input device when the PC Card is inserted) (col. 26, lines 48-48-50); (c) providing an interrupt signal from the option pack to the main unit; (d) interrupting the processing of the main unit; (e) notifying the main unit that the option pack is present (col. 26, lines 50-54 and col. 7, lines 1-5); and (f) transmitting identification information (Configuration Option/Card Configuration/Status Register) from the option pack to the main unit (col. 8, lines 43-54).

As to claim 22, Postman further teaches interrupt the main unit with one or more detect signals (col. 26, lines 50-54 and col. 7, lines 1-5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petty (6,389,486) as applied to claim 1 above, and further in view of Bailey et al. (6,134,612) (herein after Bailey).

As to claim 2, Petty does not explicitly disclose coupling the option pack with the main unit via a 100-pin connector. Bailey teaches 100-pin connector (Fig. 82). It would have been obvious to one of ordinary skill in the art to implement 100-pin connector as taught by Bailey in the system of Petty to connect the PCMCIA card with the main unit (col. 47, lines 11-24).

6. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petty (6,389,486) as applied to claim 1 above, and further in view of Inoue (5,444,222).

As to claim 5, Petty does not explicitly disclose the first memory device comprises a flash memory or a read only memory. Inoue teaches a card comprising a ROM (col. 11, lines 3-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the first memory device as a ROM as taught by Inoue in the system of Petty to store non-volatile program of the card (col. 11, lines 10-11).

As to claim 6, Petty does not explicitly disclose the second memory device comprises an EEPROM. Inoue teaches a card comprising an EEPROM (col. 11, lines 13-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the second memory device as an EEPROM as taught

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by Inoue in the system of Petty to store data to be specially preserved such as attribute information of the card (col. 11, lines 13-15).

7. Claims 11-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petty (6,389,486) as applied to claim 1 above, and further in view of De Nicolo (6,308,240).

As to claim 11, Petty does not explicitly teach transmitting the identification data through a serial interface. De Nicolo teaches transmitting the identification data (“send your maximum power requirement”, “send your model type”...) through a serial interface (communication register 48) (col. 4, lines 37-53). It would have been obvious to one of ordinary skill in the art to include transmitting the identification data through a serial interface as taught by De Nicolo in the system of Petty to provide communication interface between the card and the main unit and to conserve power (col. 4, lines 45-53).

As to claim 12, Petty further teaches enabling the power supply to transmit power to the option pack (col. 4, lines 42-46 wherein obtaining the power information from the card implies that the hosting device will transmit the power needed to the card).

However, Petty does not explicitly teach transmitting the identification data wherein the option pack only draws a minimal amount of current from the main unit. De Nicolo further teaches transmitting the identification data wherein the card only draws a minimal amount of current from the main unit (col. 4, lines 47-53).

As to claim 14, De Nicolo further teaches determining whether the power supply in the main unit has enough power to activate the card fully (col. 1, lines 64-67 and col. 2, lines 1-3).

8. Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petty (6,389,486) in view of De Nicolo (6,308,240) as applied to claims 1-12 above, and further in view of Miller (6,199,168).

As to claim 13, Petty and Nicolo do not explicitly teach transmitting the identification data wherein the option pack draws 5.0-15.0 mA of current from the main unit. Miller teaches transmitting the identification data wherein the card draws 5.0-15.0 mA (around 2 to 20 milliamps) (col. 3, lines 8-17). It would have been obvious to one of ordinary skill in the art to implement transmitting the identification data wherein the option pack draws 5.0-15.0 mA of current from the main unit as suggested by Miller in the system of Petty and De Nicolo to conserve power wherein the card can still turn on and check the card's status (col. 3, lines 13-17).

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petty (6,389,486) as applied to claim 1 above, and further in view of Kane et al. (5,652,832) (herein after Kane).

As to claim 15, Petty does not explicitly teach determining whether the third memory device has enough memory capacity to receive the applications and associated drivers information. Kane teaches checking that there is enough memory allocated in the main unit in order for the card to be recognized and configured (col. 14, lines 45-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include checking if there is enough memory allocated in the main unit as taught by Kane in the system of Petty to prevent data overrun.

10. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Postman et al. (5,664,231) (herein after Postman) as applied to claim 17 above, and further in view of De Nicolo (6,308,240).

As to claim 18, Postman does not explicitly teach determining whether the main unit has enough power to enable the option pack. De Nicolo teaches determining whether the main unit has enough power to enable the option pack (col. 1, lines 64-67 and col. 2, lines 1-3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include determining whether the main unit has enough power to enable the option pack as taught by De Nicolo in the system of Postman to prevent power's shortness of the main unit and conserve power for the main unit.

As to claim 19, De Nicolo further teaches notifying a user as to whether the main unit has enough power to enable the option pack (col. 2, lines 3-8).

11. Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Postman et al. (5,664,231) (herein after Postman) as applied to claim 17 above, and further in view of Kane et al. (5,652,832) (herein after Kane).

As to claim 20, Postman does not explicitly teach determining whether the main unit has enough memory to store the information from the option pack. Kane teaches checking that there is enough memory allocated in the main unit in order for the card to be recognized and configured (col. 14, lines 45-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include checking if there

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is enough memory allocated in the main unit as taught by Kane in the system of Petty to prevent data overrun.

As to claim 21, Kane further teaches notifying a user as to whether the main unit has enough memory to store the information (col. 2, lines 18-20).

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Postman et al. (5,664,231) (herein after Postman) as applied to claim 22 above, and further in view of Cepulis (6,055,596).

As to claim 23, Postman does not explicitly teach the detect signals initiate a timer to allow the detect signals to debounce. Cepulis teaches a timer to debounce a signal (col. 74, lines 21-28). It would have been obvious to include a timer to debounce a signal as taught by Cepulis in the system of Postman to eliminate false triggers due to e.g. mechanical vibrations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trisha U. Vu whose telephone number is 703-305-5959. The examiner can normally be reached on Mon-Thur and alternate Fri from 7:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 703-305-4815. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



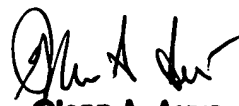
Trisha U. Vu

Examiner

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uv

May 20, 2003



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